

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-022484**Date Inspected:** 10-Apr-2011**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** An Qing Xiang**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG**Summary of Items Observed:**

On this day CALTRANS OSM Quality Assurance (QA) Inspector Umesh Gaikwad was present during the times noted above for observations relative to the fabrication of the SAS Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island in Shanghai, China. QA observed and/or found the following:

This Quality Assurance (QA) Inspector observed the following work in progress:

Bay 14

OBG Seg 14W:

The Shielded Metal Arc Welding (SMAW) process on weld joint no: SEG3020BB-029 [Top anchorage plate (AP) 3014A to Vertical Shear Plate sub-assembly SA3446A, Complete Joint Penetration (CJP) weld in between panel point PP125 to PP126]. The welders are identified as 045246 and 045196 and were observed welding in 4G position. ZPMC QC was identified as Mr. Zhu Lin. The welding variables recorded by this QC appeared to comply with WPS: B-P-2214-Tc-U4b-FCM-1.

The SMAW process on weld joint no: SEG3020BB-011 [Top anchorage plate (AP) 3013A to Vertical Shear Plate sub-assembly SA3444A, CJP weld in between panel point PP125 to PP126]. The welders are identified as 037932 and 067765 and were observed welding in 4G position. ZPMC QC was identified as Mr. Zhu Lin. The welding variables recorded by this QC appeared to comply with WPS: B-P-2214-Tc-U4b-FCM-1.

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The SMAW process on weld joint no: SEG3020BB-047 [Top anchorage plate (AP) 3015A to Vertical Shear Plate sub-assembly SA3448A, CJP weld in between panel point PP125 to PP126]. The welders are identified as 069841 and 066261 and were observed welding in 4G position. ZPMC QC was identified as Mr. Zhu Lin. The welding variables recorded by this QC appeared to comply with WPS: B-P-2214-Tc-U4b-FCM-1.

The Flux Cored Arc Welding (FCAW) process on weld joint no: SEG3020E-010 [Deck Panel diaphragm plate X4856K of Deck Panel (DP) 3175A to block out bottom plate Sub Assembly SA3416C, CJP weld at PP128.3]. The welder is identified as 067949 and was observed welding in 2G position. ZPMC QC was identified as Mr. Zhu Lin. The welding variables recorded by this QC appeared to comply with WPS: B-P-2212-B-U2-FCM-1.

The FCAW process on weld joint no: SEG3020V-039 [Deck Panel diaphragm plate X4812G of DP 3172A to flange of Floor Beam (FB) 3316A, CJP weld at PP125]. The welder is identified as 203871 and was observed welding in 2G position. ZPMC QC was identified as Mr. Zhu Lin. The welding variables recorded by this QC appeared to comply with WPS: B-T-2232-ESAB.

The FCAW process on weld joint no: SEG3020T-314 [Deck Panel diaphragm plate X4814A of DP 3174A to flange of FB3318C, CJP weld at PP125.5]. The welder is identified as 043433 and was observed welding in 2G position. ZPMC QC was identified as Mr. Zhu Lin. The welding variables recorded by this QC appeared to comply with WPS: B-T-2232-ESAB.

The FCAW process on weld joint no: SEG3020W-001 [Deck Panel diaphragm plate X4812F of DP 3173A to flange of FB3316A, CJP weld at PP125]. The welder is identified as 062708 and was observed welding in 2G position. ZPMC QC was identified as Mr. Zhu Lin. The welding variables recorded by this QC appeared to comply with WPS: B-T-2232-ESAB.

The FCAW process on weld joint no: SEG3020J-019 [Deck Panel diaphragm plate X4856C of DP 3176A to flange of FB3335A, CJP weld at PP127.5]. The welder is identified as 069469 and was observed welding in 2G position. ZPMC QC was identified as Mr. Zhu Lin. The welding variables recorded by this QC appeared to comply with WPS: B-T-2232-ESAB.

The FCAW process on weld joint no: SEG3020M-030 [Deck Panel diaphragm plate X4817A of DP 3177A to flange of FB3329A, CJP weld at PP127]. The welder is identified as 066421 and was observed welding in 2G position. ZPMC QC was identified as Mr. Zhu Lin. The welding variables recorded by this QC appeared to comply with WPS: B-T-2232-ESAB.

The FCAW process on weld joint no: SEG3020*-012 [DP 3184A to Edge Plate (EP) 3029A, CJP weld]. The welder is identified as 045143 and was observed welding in 2G position. ZPMC QC was identified as Mr. Zhu Lin. The welding variables recorded by this QC appeared to comply with WPS: B-T-2232-ESAB.

The FCAW process on weld joint no: SEG3020*-013 [DP 3168A to EP 3029A, CJP weld]. The welder is identified as 201583 and was observed welding in 2G position. ZPMC QC was identified as Mr. Zhu Lin. The welding variables recorded by this QC appeared to comply with WPS: B-T-2232-ESAB.

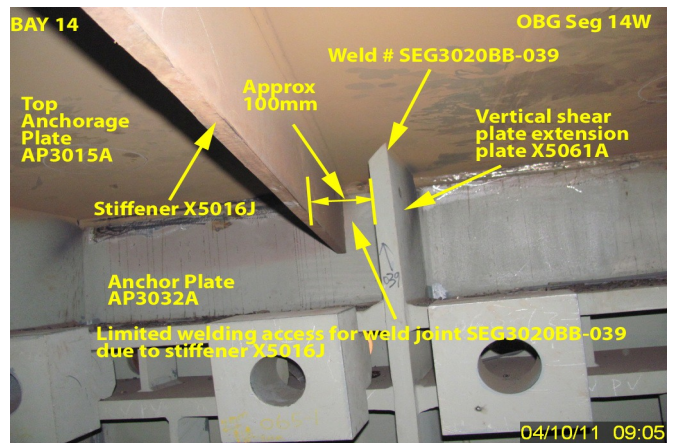
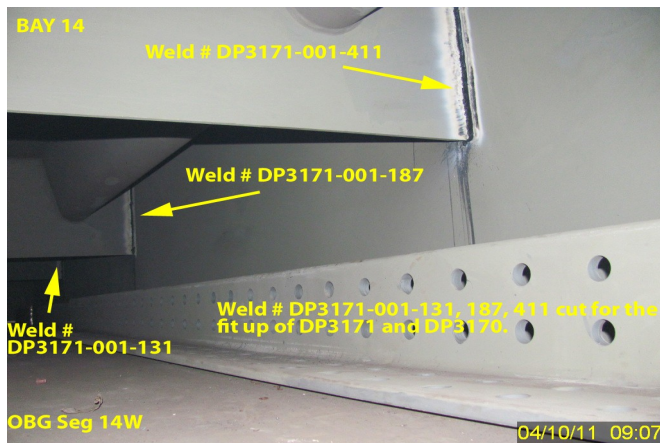
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During random in process visual inspection of weld joint SEG3020BB-039 (joining vertical shear plate extension plate X5061A on Anchor Plate AP3032A to top anchorage plate AP3015A at PP126); this QA Inspector observed that due to stiffener X5016J on top anchorage plate AP3015A, welding access for the above mentioned weld is limited. This issue has been discussed with ZPMC CWI Mr. An Qing Xiang, AB/F QA Inspector and CT Lead QA Inspector. Mr. An Qing Xiang informed this QA that he will discuss this issue with ZPMC engineer and take necessary action to resolve this issue as compliance with contract documents. Attached photograph provide more details.

During random in process visual inspection this QA Inspector observed that weld joints DP3171-001-131, 187 and 411 at PP125.5, PP126 and PP126.5 respectively were cut by ZPMC personnel for the fit up of DP3171A to DP3172A. This cutting was done as per Welding Repair Report (WRR) B-WR20452. Attached photograph provide additional details.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.



Summary of Conversations:

Only general conversation was held between QA and QC concerning this project.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang : 15000422372, who represents the Office of Structural Materials for your project.

Inspected By: Gaikwad,Umesh

Quality Assurance Inspector

Reviewed By: Peterson,Art

QA Reviewer